

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

Rec'd PCT/PTO 21 MAR 2005

PCT

WRITTEN OPINION  
(PCT Rule 66)

To:

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20. April 2004

TBK - PATENT

Date of mailing  
(day/month/year)

19.04.2004

Applicant's or agent's file reference

WO 38948

REPLY DUE

within 3 month(s)  
from the above date of mailing.

International application No.  
PCT/IB 03/04338

International filing date (day/month/year)  
02.10.2003

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03.10.2002

International Patent Classification (IPC) or both national classification and IPC  
B60K1/04

Applicant

TOYOTA JIDOSHA KABUSHIKI KAISHA et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.
 

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 03.02.2005

19.7.04 ✓

19.5. ✓

Name and mailing address of the international preliminary examining authority:



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**I. Basis of the opinion**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

**Description, Pages**

1-14 as originally filed

**Claims, Numbers**

1-12 as originally filed

**Drawings, Sheets**

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-12
Inventive step (IS)	Claims	
Industrial applicability (IA)	Claims	

**2. Citations and explanations****see separate sheet**

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Reference is made to the following documents**

D1: US-B1-6 378 637 (KAMI YOZO ET AL) 30 April 2002 (2002-04-30)

D2: EP-A-0 677 417 (DAIMLER BENZ AG) 18 October 1995 (1995-10-18)

2. From D1 there is already known a fuel cell equipped vehicle comprising a fuel cell (column 4, line 64, "fuel cell 3") that generates electric power through a reaction between a fuel gas and an oxidizing gas, a fuel gas tank (column 4, line 64, "fuel gas tank 1") that stores the fuel gas to be supplied to the fuel cell, fuel cell accessory (column 4, line 54 to 67) that operates when the fuel cell generates electric power, a storage battery (column 4, line 65, "electrical energy storage 7" together with column 3, lines 33 to 35) that stores electric energy, and an electric power control unit (column 5, line 8, "distributor 22") that controls supply of electric power regarding the fuel cell and the storage battery, wherein the fuel cell, the fuel gas tank, the fuel cell accessory, the storage battery and the electric power control unit are disposed below a floor of a passenger compartment of the vehicle (column 5, line 36 to column 6, line 11, figure 7). D1の構成で本件構成の構成要素は

Thus, all features of claim 1 are known from the disclosure of D1. Consequently, the subject matter of claim 1 does not fulfill the requirement of Art. 33 PCT with respect to novelty.

3. Dependent claims 2 to 11 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:

The subject matters of claims 2 and 3 can be easily derived from the disclosure of D1 (figure 7 of D1).

According to the disclosure of D1, the fuel cell accessory is disposed at one or both of a right side and a left side of the fuel cell, as claimed in claim 4 (figure 7 of D1).

To arrange the upper surfaces of the fuel cell, the fuel gas tank, the fuel cell accessory, the storage battery, and the electric power control unit at substantially equal heights, as claimed in claim 5, is known from the disclosure of D2 (figure 2a).

The subject matter of claim 6 defines a slight constructional change in the fuel cell

**WRITTEN OPINION  
SEPARATE SHEET**

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International application No. PCT/IB03/04338

equipped vehicle of claim 1 which comes within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen.

Disposing the fuel cell, the fuel gas tank, the fuel cell accessory, the storage battery, and the electric power control unit in a space formed between a right-side frame and a left-side frame of a body frame, according to the subject matter of claim 7, is also known from the disclosure of D2 (figure 2b of D2).

A radiator for cooling the fuel cell and its deposition between two frame rails of the body frame, as claimed in claims 8 and 9, respectively, is already known from the disclosure of D2 (figure 1b of D2, ref. 33).

The subject matters of claims 10 to 12 merely define slight constructional changes in the fuel cell equipped vehicle of claim 1 which come within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen.